LGL-3-10
1536v

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

4500-5

TO : Boyd Wickman, Project Leader
Forest Insect Laboratory
Hat Creek, California 96040

DATE: July 31, 1967

FROM : R. R. Mason
Forestry Sciences Laboratory
Corvallis, Oregon 97331

SUBJECT: Forest Insect Research (Insect Survey Techniques)

On July 24 and 25 C. G. Thompson, T. C. Tigner and I re-examined the ten tussock moth study points established in early June near Aztec Peak, Arizona. An identical sampling system was used and the same trees examined in this second measurement as was employed at the time of point establishment (see memo dated June 13, 1967).

All larvae sampled were in the 4th or 5th instar; no pupation was observed anywhere in the area. Defoliation was extremely light and could be recognized only after careful examination of new foliage. Even in the heaviest areas feeding was usually limited to part of a few needles on a new tip. Following are the results of the second examination:

Point	Mean larvae per 1000 in^2	Standard error	Percentage of samples with tussock moth	Percent survival from 1st to 2nd examination
A	0.11	0.11	2	6
B	0.42	0.26	7	23
C	3.28	0.95	42	45
D	2.36	0.72	29	72
E	0.38	0.19	9	49
F	0.62	0.25	13	28
G	0.87	0.32	16	43
H	0.36	0.21	7	54
I	0.27	0.19	4	386
J	0	0	0	0
All points	0.87	0.34	13	42

Over the six week period between examinations apparently 42 percent of the population survived. This is a considerably higher survival rate than was measured for a comparable period at the Corral Creek, California outbreak in 1966. Further mortality can be expected in the final larval instar and pupal stage, but a substantial population increase for next year appears to be likely. An egg sample should be taken in the Fall for fixing next years probable level.

R. R. Mason
RRMbb

5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan